

REMARKS

Claims 1-3 and 10 are pending in this application. Applicant respectfully requests allowance of all the pending claims.

Drawing Objections

The Examiner objects to the drawings under 37 C.F.R. 1.83(a) as not showing every feature of the invention specified in the claims. Specifically, the Examiner states that the fasteners connecting the elongated members together must be shown in the drawings or cancelled from the claims. In response, Applicants add Figs. 14 and 15 to illustrate fasteners (e.g., nails and screws) connecting the elongated members.

Figs. 14 and 15 are not new matter because fastening the elongated members with a nail or screw was disclosed in the originally-filed specification. Applicant notes that “information contained in any one of the specification, claims, or drawings of the application as filed may be added to any other part of the application without introducing new matter.” MPEP 2163.06. Driving a nail or screw to fasten elongated members was disclosed in the first paragraph of page 10 and therefore may be added to the drawings without introducing new matter. Applicants respectfully request the Examiner to withdraw the objection to the drawings and enter Figs. 14 and 15 into the drawings.

Applicants add paragraphs to describe newly-added Fig. 14 and 15 in the BRIEF DESCRIPTION OF THE DRAWINGS and in the DETAILED DESCRIPTION. The added paragraphs do not introduce new matter for the reasons stated above.

Claim Rejections – 35 U.S.C. §103(a)

The Examiner rejects claims 1-3 and 10 under 35 U.S.C. §103(a) as being unpatentable over United States Patent No. 5,402,612 (“DiGirolamo”) in view of United States Patent No. 5,494,513 (“Fu”).

Amended independent claim 1 recites a frame assembly for use in construction of a building including, among other things, at least one precast fiber reinforced cellular concrete elongated linear structural member connected to at least one of a pair of precast fiber reinforced cellular concrete elongated linear structural members driving a nail or screw through one and into the other to mechanically join them together.

Amended independent claim 2 recites a method for constructing a building using non-wood construction products including, among other things, driving a nail or screw through at least one precast fiber reinforced cellular concrete intermediate element or a precast fiber reinforced cellular concrete elongated first end element and into the other to mechanically join them together.

Amended independent claim 3 recites a structural frame for use in forming a building including, among other things, at least one of a plurality of precast fiber reinforced cellular concrete elongated intermediate elements connected to a precast fiber reinforced cellular concrete first end element by driving a nail or screw through one and into the other to mechanically join them together.

Amended independent claim 10 recites a frame assembly for use in construction of a building including, among other things, at least one of a pair of precast fiber reinforced cellular concrete elongated linear structural members connected to at least one precast fiber reinforced cellular concrete elongated linear structural member by driving a nail or screw through one and into the other to mechanically join them together.

Claims 1-3 and 10 each recite a frame assembly including a first precast fiber reinforced cellular concrete elongated linear structural member connected to a second precast fiber reinforced cellular concrete elongated linear structural by driving a nail or screw through one and into the other to mechanically join them together.

The high-performance fiber reinforced cellular concrete products of the present invention can directly substitute for conventional wood lumber products for the use in structural frame assemblies because the products of the invention have load capacities in flexure, compression, tension, and shear equaling or exceeding the corresponding values for stud grade lumber commonly used in construction. In addition, the products of the invention possess the same workability, nailability, and sawability characteristics of lumber.

DiGirolamo discloses a structural support system using elongated linear structural members formed from lightweight steel and interconnected using mechanical fasteners.

Fu discloses cellular concrete with a mineral addition of Zeolite. As suggested in lines 64-67 of col. 9, the lightweight concrete product can be used in wall construction.

The Examiner concedes that DiGirolamo does not disclose precast fiber reinforced cellular concrete elongated linear structural members. However, the Examiner argues that, in

view of the teachings of Fu, it would have been obvious for one skilled in the art at the time the invention was made to replace the steel elongated linear structural members of DiGirolamo with the fiber reinforced cellular concrete of Fu because the elongated linear structural members would be lighter without sacrificing strength and because the frame would be more resistant to fire.

Applicants respectfully disagree with the Examiner's argument and submit that there is no suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. One of ordinary skill in the art who designs construction materials made of fiber reinforced cellular concrete would not look to art relating to steel structural systems because this field is completely unrelated to fiber reinforced cellular concrete.

In addition, there is no teaching or suggestion in the references themselves that would motivate one of ordinary skill in the art to combine the references to achieve the claimed invention. The Examiner states that it would have been obvious for one skilled in the art at the time the invention was made to modify the steel studs of DiGirolamo to be made of the fiber reinforced cellular concrete of Fu. Applicants respectfully disagree with the Examiner, and respectfully submit that the Examiner has failed to specifically identify where DiGirolamo teaches or suggests the motivation to substitute fiber reinforced cellular concrete studs for the steel studs, or where Fu teaches or suggests that the fiber reinforced cellular concrete material can be used in a structural frame assembly and connected together by driving nails or screws. Although Fu teaches that the material can be used in wall construction, no details of the type of wall construction is disclosed. Applicants respectfully submit that there is no teaching or suggestion in Fu that the disclosed material has the necessary strength and characteristics to be used in a structural frame assembly and to be nailed or screwed together. Because the Examiner has failed to provide a specific reference to these teachings, Applicants respectfully submit that the Examiner is attempting to combine DiGirolamo and Fu by using hindsight reconstruction based on Applicants' disclosure.

In addition, Applicant respectfully submits that the Examiner has failed to provide support of a reasonable expectation of success for his proposed modification. In the Examiner's argument, he states that using the fiber reinforced cellular concrete of Fu would "be lighter [than the steel studs of DiGirolamo] without sacrificing strength." Applicant respectfully requests the Examiner to cite to where it is taught that the disclosed fiber reinforced cellular concrete can be

substituted for steel studs in a structural frame assembly without sacrificing strength. Also, Applicant respectfully requests the Examiner to cite where a reasonable expectation of success is taught for the proposed modification.

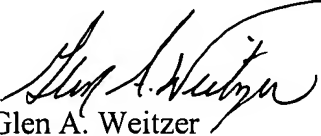
Accordingly, Applicant respectfully submits that DiGirolamo and Fu cannot be combined as suggested by the Examiner. Applicants respectfully submit that the Examiner has failed to present a *prima facie* case of obviousness based upon the prior art as required by 35 U.S.C. §103(a).

Accordingly, claims 1-3 and 10 are allowable.

In the event that the Examiner does not find Applicant's arguments persuasive such that the Examiner maintains the present rejections, Applicant respectfully requests the Examiner to designate the following Office action as final so that Applicant may proceed with an appeal.

The Examiner is invited to contact the undersigned attorney should the Examiner determine that such action would facilitate the prosecution and allowance of the present application.

Respectfully submitted,



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